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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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BINGHAM, MCCUTCHEN LLP THREE EMBARCADERO CENTER 18 FLOOR SAN FRANCISCO, CA 94111-4067			HAROON, ADEEL	
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/612,758	Applicant(s) NAIDU ET AL.	
	Examiner Adeel Haroon	Art Unit 2685	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-62 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-62 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 42-47, 49-53 rejected under 35 U.S.C. 102(e) as being anticipated by Matz et al. (U.S. 6,683,581).

With respect to claims 42 and 43, Matz et al. discloses a system comprising an antenna, element number 130, that can be coupled to a subscriber terminal and a circuit-based compass, element number 140, secured to the antenna measuring an orientation of the antenna (Column 8, lines 57-64).

With respect to claim 44, Matz et al. discloses a method for installing an antenna comprising securing the antenna to a structure (Column 9, lines 36-38). Matz et al. discloses a feedback device, element number 142, that provides a signal based on an orientation of the antenna and a desired mounting configuration of the antenna and

adjusting the orientation of the antenna based on the signal, display (Column 11, lines 17-30).

With respect to claim 45, Matz et al. further discloses measured and desired orientation of the antenna comprises an azimuth angle of the antenna (Column 11, lines 17-21).

With respect to claim 46, Matz et al. further discloses measured and desired orientation of the antenna comprises an elevation angle of the antenna (Column 8, line 65 – Column 9, line 15).

With respect to claim 47, Matz et al. further discloses the indicator comprises a digital display therefore being an optical signal and adjustment is based on the value of the display (Column 11, lines 22-30).

With respect to claims 49-50, Matz et al. further discloses using an audio source for generating a signal as an indicator for alignment of the antenna and using the audio signal and the termination of the audio signal as the basis for the antenna positioning and orienting (Column 12, lines 7-15).

With respect to claim 51, Matz et al. further discloses the indicator comprises a digital display therefore being a text message and adjustment is based on the value of the display (Column 11, lines 22-30).

With respect to claims 52 and 53, Matz et al. further discloses changing the elevation and azimuth angle of the antenna (Column 11, lines 17-21).

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3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 55-56, 59 and 62 are rejected under 35 U.S.C. 102(b) as being anticipated by Shintani (U.S. 6,229,480).

With respect to claim 55, Shintani discloses a method of initializing a feedback device secured to an antenna having a memory unit comprising inputting data associated with a desired mounting configuration of the antenna to the memory unit, element number 126 (Column 4, lines 46-50).

With respect to claim 56, Shintani further discloses the data being desired orientation of the antenna (Column 4, lines 46-50).

With respect to claim 59, Shintani further discloses determining the desired orientation of the antenna (Column 3, line 57 – Column 4, line 10).

With respect to claim 62, it is considered inherent that optimum orientation information is associated with the base station from which the signal can be received by the antenna.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-41, 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matz et al. (U.S. 6,683,581) in view of Shintani (U.S. 6,229,480).

With respect to claim 1, Matz et al. discloses a system comprising an antenna, element number 130, that can be coupled to a subscriber terminal and a compass, element number 140, secured to the antenna measuring an orientation of the antenna (Column 8, lines 57-64). Matz et al. also discloses generating a signal based on a measured orientation of the antenna by the compass as the display using a processor (Column 11, lines 17-30). Matz et al. further discloses that the desired mounting configurations of the antenna are known to the installer (Column 11, lines 24-26). Matz et al. does not expressly disclose a memory unit for storing the desired configurations. However, Shintani discloses an antenna alignment method that teaches the use of a memory, element number 126, that stores desired mounting configurations and a processor, element number 120, to process the measured and desired configuration

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settings (Column 2, lines 29-32 and Column 3, line 57 – Column 4, line 10). Therefore, it would be obvious to one of ordinary skill in the art at the time of the applicant's invention, to use Shintani's configuration storage method to the system of Matz et al. thus having the desired configurations saved by the processor in order to eliminate possible human error from the process.

With respect to claim 2, Matz et al. further discloses data for mounting configuration includes the azimuth angle of the antenna (Column 11, lines 17-21).

With respect to claims 3 and 4, Matz et al. further discloses the processor generating a signal, display signal, when the measured azimuth angle is the same or not the same as the desired azimuth angle (Column 11, lines 22-30).

With respect to claim 5, Matz et al. further discloses an indicator, element number 142, to receive the signal (Column 11, lines 22-30).

With respect to claim 6, Matz et al. further discloses the indicator comprises a digital display therefore having a light source for generating an optical signal (Column 11, lines 22-30).

With respect to claim 7, Matz et al. further discloses using an audio source for generating a signal as an indicator for alignment of the antenna (Column 12, lines 7-15).

With respect to claims 8 and 9, Matz et al. further discloses an indicator, element number 142, emitting a signal, display signal, when the measured azimuth angle is the same or not the same as the desired azimuth angle (Column 11, lines 22-30).

With respect to claim 10, Matz et al. discloses a tilt sensor, element number 150, secured to the antenna measuring an elevation angle (Column 8, line 65 – Column 9,

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line 15). Matz et al. also discloses generating a signal based on a measured elevation angle of the antenna by the tilt sensor as the display using a processor (Column 11, lines 17-30). Matz et al. further discloses that the desired elevation angle of the antenna is known to the installer (Column 11, lines 24-26). Matz et al. does not expressly disclose a memory unit for storing the desired configurations. However, Shintani discloses an antenna alignment method that teaches the use of a memory, element number 126, that stores desired mounting configurations and a processor, element number 120, to process the measured and desired configuration settings (Column 2, lines 29-32 and Column 3, line 57 – Column 4, line 10). Therefore, it would be obvious to one of ordinary skill in the art at the time of the applicant's invention, to use Shintani's configuration storage method to the system of Matz et al. thus having the desired configurations saved by the processor in order to eliminate possible human error from the process.

With respect to claim 11, Matz et al. further discloses data for mounting configuration includes the elevation angle of the antenna (Column 11, lines 17-21).

With respect to claim 12, Matz et al. discloses a position sensor, element number 160, secured to the antenna measuring an elevation angle (Column 9, line 16-36). Matz et al. also discloses generating a signal based on a measured position of the antenna by the position sensor as the display using a processor (Column 11, lines 17-30). Matz et al. further discloses that the desired position of the antenna is known to the installer (Column 11, lines 24-26). Matz et al. does not expressly disclose a memory unit for storing the desired configurations. However, Shintani discloses an antenna alignment

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method that teaches the use of a memory, element number 126, that stores desired mounting configurations and a processor, element number 120, to process the measured and desired configuration settings (Column 2, lines 29-32 and Column 3, line 57 – Column 4, line 10). Therefore, it would be obvious to one of ordinary skill in the art at the time of the applicant's invention, to use Shintani's configuration storage method to the system of Matz et al. thus having the desired configurations saved by the processor in order to eliminate possible human error from the process.

With respect to claim 13, Matz et al. further discloses data for mounting configuration includes the elevation angle of the antenna (Column 11, lines 17-21).

With respect to claim 14 and 15, Matz et al. does not expressly disclose digital signal processor that receives the RF signal and generates a quality signal. However, Shintani discloses a digital signal processor, element number 120, that processes the received RF signal and generates a signal when the processed RF signal has a desirable quality (Column 3, line 57 – Column 4, line 10). Therefore, it would be obvious to one of ordinary skill in the art at the time of the applicant's invention, to use Shintani's signal quality technique in the modified system of Matz et al. and Shintani in order to have a measure of the signal quality thus making the system more reliable.

With respect to claim 16, Matz et al. discloses a device for installing an antenna, comprising a structure, element number 112, and a compass, element number 140, secured to the antenna measuring an orientation of the antenna (Column 8, lines 57-64 and Column 9, lines 36-38). Matz et al. also discloses generating a signal based on a measured orientation of the antenna by the compass as the display using a processor

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(Column 11, lines 17-30). Matz et al. further discloses that the desired mounting configurations of the antenna are known to the installer (Column 11, lines 24-26). Matz et al. does not expressly disclose a memory unit for storing the desired configurations. However, Shintani discloses an antenna alignment method that teaches the use of a memory, element number 126, that stores desired mounting configurations and a processor, element number 120, to process the measured and desired configuration settings (Column 2, lines 29-32 and Column 3, line 57 – Column 4, line 10). Therefore, it would be obvious to one of ordinary skill in the art at the time of the applicant's invention, to use Shintani's configuration storage method to the system of Matz et al. thus having the desired configurations saved by the processor in order to eliminate possible human error from the process.

With respect to claim 17, Matz et al. further discloses data for mounting configuration includes the azimuth angle of the antenna (Column 11, lines 17-21).

With respect to claims 18 and 19, Matz et al. further discloses the processor generating a signal, display signal, when the measured azimuth angle is the same or not the same as the desired azimuth angle (Column 11, lines 22-30).

With respect to claim 20, Matz et al. further discloses an indicator, element number 142, to receive the signal (Column 11, lines 22-30).

With respect to claim 21, Matz et al. further discloses the indicator comprises a digital display therefore having a light source for generating an optical signal (Column 11, lines 22-30).

With respect to claim 22, Matz et al. further discloses using an audio source for generating a signal as an indicator for alignment of the antenna (Column 12, lines 7-15).

With respect to claims 23 and 24, Matz et al. further discloses an indicator, element number 142, emitting a signal, display signal, when the measured azimuth angle is the same or not the same as the desired azimuth angle (Column 11, lines 22-30).

With respect to claim 25, Matz et al. discloses a tilt sensor, element number 150, secured to the antenna measuring an elevation angle (Column 8, line 65 – Column 9, line 15). Matz et al. also discloses generating a signal based on a measured elevation angle of the antenna by the tilt sensor as the display using a processor (Column 11, lines 17-30). Matz et al. further discloses that the desired elevation angle of the antenna is known to the installer (Column 11, lines 24-26). Matz et al. does not expressly disclose a memory unit for storing the desired configurations. However, Shintani discloses an antenna alignment method that teaches the use of a memory, element number 126, that stores desired mounting configurations and a processor, element number 120, to process the measured and desired configuration settings (Column 2, lines 29-32 and Column 3, line 57 – Column 4, line 10). Therefore, it would be obvious to one of ordinary skill in the art at the time of the applicant's invention, to use Shintani's configuration storage method to the system of Matz et al. thus having the desired configurations saved by the processor in order to eliminate possible human error from the process.

With respect to claim 26, Matz et al. further discloses data for mounting configuration includes the elevation angle of the antenna (Column 11, lines 17-21).

With respect to claim 27, Matz et al. discloses a position sensor, element number 160, secured to the antenna measuring an elevation angle (Column 9, line 16-36). Matz et al. also discloses generating a signal based on a measured position of the antenna by the position sensor as the display using a processor (Column 11, lines 17-30). Matz et al. further discloses that the desired position of the antenna is known to the installer (Column 11, lines 24-26). Matz et al. does not expressly disclose a memory unit for storing the desired configurations. However, Shintani discloses an antenna alignment method that teaches the use of a memory, element number 126, that stores desired mounting configurations and a processor, element number 120, to process the measured and desired configuration settings (Column 2, lines 29-32 and Column 3, line 57 – Column 4, line 10). Therefore, it would be obvious to one of ordinary skill in the art at the time of the applicant's invention, to use Shintani's configuration storage method to the system of Matz et al. thus having the desired configurations saved by the processor in order to eliminate possible human error from the process.

With respect to claim 28, Matz et al. further discloses data for mounting configuration includes the elevation angle of the antenna (Column 11, lines 17-21).

With respect to claim 29 and 30, Matz et al. does not expressly disclose digital signal processor that receives the RF signal and generates a quality signal. However, Shintani discloses a digital signal processor, element number 120, that processes the received RF signal and generates a signal when the processed RF signal has a

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desirable quality (Column 3, line 57 – Column 4, line 10). Therefore, it would be obvious to one of ordinary skill in the art at the time of the applicant's invention, to use Shintani's signal quality technique in the modified system of Matz et al. and Shintani in order to have a measure of the signal quality thus making the system more reliable.

With respect to claims 31 and 32, Matz et al. discloses a device receiving an input associated with a measured orientation of an antenna (Column 11, lines 17-30). Matz et al. further discloses that the desired mounting configurations of the antenna are known to the installer and comparing the input data with desired mounting configuration (Column 11, lines 24-26): Matz et al.'s signal for the display, element number 142, is a signal based on the measured orientation (Column 11, lines 21-30) Matz et al. does not expressly disclose a memory unit for storing the desired configurations. However, Shintani discloses an antenna alignment method that teaches the use of a memory, element number 126, that stores desired mounting configurations and a processor, element number 120, to process the measured and desired configuration settings (Column 2, lines 29-32 and Column 3, line 57 – Column 4, line 10). Therefore, it would be obvious to one of ordinary skill in the art at the time of the applicant's invention, to use Shintani's configuration storage method to the system of Matz et al. thus having the desired configurations saved by the processor in order to eliminate possible human error from the process.

With respect to claim 33, Matz et al. further discloses receiving an input from a circuit based compass, element number 140 (Column 8, lines 57-64).

With respect to claim 34, Matz et al. further discloses measured and desired orientation of the antenna comprises an azimuth angle of the antenna (Column 11, lines 17-21).

With respect to claims 35 and 36, Matz et al. further discloses the processor generating a signal, display signal, when the measured azimuth angle is the same or not the same as the desired azimuth angle (Column 11, lines 22-30).

With respect to claim 37, Matz et al. further discloses receiving an input from a tilt sensor, element number 150 (Column 8, line 65 – Column 9, line15).

With respect to claim 38, Matz et al. further discloses measured and desired orientation of the antenna comprises an elevation angle of the antenna (Column 8, line 65 – Column 9, line15).

With respect to claims 39 and 40, Matz et al. further discloses the processor generating a signal, display signal, when the measured elevation angle is the same or not the same as the desired elevation angle (Column 11, lines 22-30).

With respect to claim 41, Matz et al. does not expressly disclose digital signal processor that receives the RF signal and generates a quality signal. However, Shintani discloses a digital signal processor, element number 120, that processes the received RF signal and generates a signal when the processed RF signal has a desirable quality (Column 3, line 57 – Column 4, line 10). Therefore, it would be obvious to one of ordinary skill in the art at the time of the applicant's invention, to use Shintani's signal quality technique in the modified system of Matz et al. and Shintani in order to have a measure of the signal quality thus making the system more reliable.

With respect to claim 54, Matz et al.'s method is described above in the discussion of claim 44. Matz et al. does not expressly disclose a memory unit for storing the desired configurations. However, Shintani discloses an antenna alignment method that teaches the use of a memory, element number 126, that stores desired mounting configurations and a processor, element number 120, to process the measured and desired configuration settings (Column 2, lines 29-32 and Column 3, line 57 – Column 4, line 10). Therefore, it would be obvious to one of ordinary skill in the art at the time of the applicant's invention, to use Shintani's configuration storage method to the system of Matz et al. thus having the desired configurations saved by the processor in order to eliminate possible human error from the process.

3. Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matz et al. (U.S. 6,683,581).

With respect to claim 48, the method of Matz et al. is described above in the discussion of claim 44. Matz et al. discloses the indicator comprises a digital display therefore being an optical signal (Column 11, lines 22-30). Matz et al. does not expressly disclose the termination of the terminal signal. However, it would be obvious to one of ordinary skill in the art at the time of the applicant's invention to use the termination of the optical signal, as an adjustment-positioning indicator in order to conserve power of the display by turning the indicator off when not needed.

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4. Claims 57-58 and 60-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shintani (U.S. 6,229,480) in view of Matz et al. (U.S. 6,683,581).

With respect to claims 57 and 58, the method of Shintani is described above in the discussion of claims 55 and 56. Shintani does not expressly disclose the desired orientation being desired azimuth and elevation angles. However, Matz et al. teaches method for aligning an antenna using a feedback device, digital display, that uses the azimuth and elevation angles for proper alignment (Column 11, lines 17-21). Therefore, it would be obvious to one of ordinary skill in the art at the time of the applicant's invention, to apply Matz et al.'s technique of using azimuth and elevation angles in the method of Shintani in order to install the antenna according to physical relationships thus making it more accurate.

With respect to claims 60 and 61, the method of Shintani is described above in the discussion of claims 55, 56, and 59. Shintani does not expressly disclose the desired orientation being desired azimuth and elevation angles. However, Matz et al. teaches method for aligning an antenna using a feedback device, digital display, that uses the azimuth and elevation angles for proper alignment (Column 11, lines 17-21). It is considered inherent that the determining the relative positions between the base station and the structure is essential in determining azimuth and elevation angles since these angles are entirely dependent from positional information. Therefore, it would be obvious to one of ordinary skill in the art at the time of the applicant's invention, to apply Matz et al.'s technique of using azimuth and elevation angles in the method of Shintani

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in order to install the antenna according to physical relationships thus making it more accurate.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chaney et al. (U.S. 5,561,433) discloses an antenna aligning method using an audible tone. Crosby et al. (U.S. 5,903,237) discloses using a blinking LED as an indicator for aligning an antenna.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adeel Haroon whose telephone number is (571) 272-7405. The examiner can normally be reached on Monday thru Friday, 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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